

Financial engineering (EM375M33B1)

Program	PGE
Module / ECTS / Path / Specialisation	Module :Financial Engineering : 9 ECTS. <ul style="list-style-type: none">Accounting and Auditing
Discipline	Finance
Year	2019
Semester	B
Open for visitors	yes (3 ECTS)
Available places	45

Coordinator

Joël PETEY

Lecturers

Instructor	Population	Email
Joël PETEY	Population	joel.petey@unistra.fr

Course format

Working language :	English
Volume of contact hours :	20 h
Workload to be expected by the student :	60 h

Course track

Track : Attendance

"Attendance" track :

Attendance at lecture / tutorial classes and intermediate / final exams is mandatory. As evaluation of in class work constitutes an essential element of grading, any absence will be penalized and is taken into account for grading purposes (see academic rules and regulations).

"Autonomous" track :

Attendance at intermediate / final exams is mandatory, but students are free to attend lecture / tutorial classes.

For all Master programs and all other programs realized in the form of dual internships (apprentissage), attendance at lecture / tutorial classes and intermediate / final exams is entirely mandatory. Therefore, only the "Attendance" track can be selected.

Contribution of the course to the educational objectives of the programme

How the course contributes to the programme :

Description

The lecture presents the most common methods and techniques of financial engineering: corporate valuation, mergers & acquisitions, leveraged buy-outs as well as leasing and securitization. The lecture stresses the interaction between financial techniques and the legal and fiscal environment of firms.

Educational organisation

In class

Lectures

In groups

Exercises

Case studies/texts

Interaction

Discussions / debates

Learning outcomes

Upon completion of this course, students should be able to :

- **Identify** most common financial techniques in valuation
- **Discuss** advantages and drawbacks of common rules and regulations that apply to corporate finance deals
- **Prepare** financial analyses of targets/acquirers
- **Select** adequate methods given context and available information
- **Collect** appropriate information about firms in order to formulate a judgment on ongoing deals
- **Appraise** feasibility, relevance, and impact of financial operations on the financial structure, risk, and return of firms

Outline

Chapter 1 Corporate valuation

- Balance sheet valuation
- P/L statement valuation
- Valuation by comparables
- Discounted Cash-flow valuation

Chapter 2 M&A 1: Takeover of quoted firms

- Mandatory declarations
- Mandatory takeovers
- The course of a takeover
- Cash and Exchange offers: choosing a mean of payment

Chapter 3 M&A 2: Mergers

- Definition of a merger
- Course of a merger

- The valuation of assets and liabilities in a merger

Chapter 4 Leveraged buy-outs

- Structure of a LBO
- Choosing a target
- Funding structure of the LBO
- Taxation
- Financial valuation of a LBO

Chapter 5 Leasing

- Definition of leasing contracts
- Advantages of leasing
- Financial valuation of leasing

Chapter 6 Securitization

- Definition and objectives
- Special Purpose Vehicles
- The balance sheet of a SPV
- Illustrations: RMBS and CDOs

Prerequisites

Key concepts to understand :

Lecture in corporate finance and financial statement analysis

Knowledge of :

Accounting, financial statement analysis, investment decisions

Teaching material

Documents in all formats

- Syllabus
- Worksheets
- Guide
- Newspaper articles
- Manuals
- Case studies

Recommended reading

Major works :

- BREALEY R.A., MYERS C., ALLEN F. - Principes de gestion financière des Entreprises (Pearson)
- CHARREAUX G. - Le gouvernement des entreprises (Economica)
- DELFOSSÉ A. - Holdings et reprise d'entreprises (Ed. d'Organisation)
- FLEURIET M. - OPA en France (Ed. Dalloz)
- RAIMBOURG P., BOIZARD M., Ingénierie financière, fiscale et juridique (Ed. Dalloz)

Further reading :

Research works by EM Strasbourg :

Assessment

Intermediate evaluation / continuous assessment 1 : session n°6

written (60 min) / individual / français / weighting : 20%

additional information : Une épreuve intermédiaire de contrôle continu et un examen en contrôle terminal.
Exercices et questions de cours.

Final assessment : exam week

written (120 min) / individual / English / weighting : 80%

This evaluation serves to measure LO1.1, LO1.2, LO1.3, LO2.2

Grounds for expulsion from classes

Such behaviors as...

arriving late, leaving early or unannounced leaving of the classroom during class time

disruptive eating or drinking in class

using smartphones and laptops for non class-related purposes

reading non class-related documents

chatting on non class-related issues

showing disrespect towards lecturers

... may lead to expulsion from classes.